Experimental Neurology

A JOURNAL OF NEUROSCIENCE RESEARCH

EDITOR-IN-CHIEF
John R. Sladek, Jr.
University of Health Sciences/
The Chicago Medical School

VOLUME 141, 1996

ACADEMIC PRESS
San Diego New York Boston London Sydney Tokyo Toronto

http://www.apnet.com

Copyright © 1996 by Academic Press, Inc.
All Rights Reserved

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner.

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc. (222 Rosewood Drive, Danvers, Massachusetts 01923), for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Copy fees for pre-1996 articles are as shown on the article title page; if no fee code appears on the title page, the copy fee is the same as for current articles.

0014-4886/96 $18.00

MADE IN THE UNITED STATES OF AMERICA

This journal is printed on acid-free paper.

Contents of Volume 141

Number 1, September 1996

JAMES C. VICKERS, DEVIKA CHIN, ANN-MARIE EDWARDS, VIOLA SAMPSON, CLIVE HARPER, AND JOHN MORRISON. Dystrophic Neurite Formation Associated with Age-Related β Amyloid Deposition in the Neocortex: Clues to the Genesis of Neurofibrillary Pathology 1

STEPHEN L. MINGER, LISA J. FISHER, JASODHARA RAY, AND FRED H. GAGE. Long-Term Survival of Transplanted Basal Forebrain Cells Following *in Vitro* Propagation with Fibroblast Growth Factor-2 12

LAN S. CHEN, JAMES G. WONG, PRADEEP K. BANERJEE, AND O. CARTER SNEAD III. Kainic Acid-Induced Focal Cortical Seizure Is Associated with an Increase of Synaptophysin Immunoreactivity in the Cortex 25

DANIEL OFFEN, ILAN ZIV, HAGIT STERNIN, ELDAD MELAMED, AND AYALA HOCHMAN. Prevention of Dopamine-Induced Cell Death by Thiol Antioxidants: Possible Implications for Treatment of Parkinson's Disease 32

MARK P. BOWES, JUSTIN A. ZIVIN, G. ROGER THOMAS, HAROLD THIBODEAUX, AND SUSAN C. FAGAN. Acute Hypertension, but Not Thrombolysis, Increases the Incidence and Severity of Hemorrhagic Transformation Following Experimental Stroke in Rabbits ... 40

D. MAYSINGER, O. BEREZOVSKAYA, AND S. FEDOROFF. The Hematopoietic Cytokine Colony Stimulating Factor 1 Is Also a Growth Factor in the CNS: (II) Microencapsulated CSF-1 and LM-10 Cells as Delivery Systems 47

L. G. ISAACSON, KAREN L. SCHWENK, S. CRAIG BILLIEU, AND K. A. CRUTCHER. Sympathetic Response to Intracranial NGF Infusion in the Absence of Afferent Input: Axonal Sprouting without Neurotransmitter Production 57

MALCOLM SCHINSTINE AND LORRAINE IACOVITTI. Expression of Neuronal Antigens by Astrocytes Derived from EGF-Generated Neuroprogenitor Cells 67

ROGER A. BARKER, STEPHEN B. DUNNETT, ANDREAS FAISSNER, AND JAMES W. FAWCETT. The Time Course of Loss of Dopaminergic Neurons and the Gliotic Reaction Surrounding Grafts of Embryonic Mesencephalon to the Striatum 79

ROBERT R. MYERS, HEIDI M. HECKMAN, AND MARIO RODRIGUEZ. Reduced Hyperalgesia in Nerve-Injured WLD Mice: Relationship to Nerve Fiber Phagocytosis, Axonal Degeneration, and Regeneration in Normal Mice 94

FEDERICO CASTRO-MOURE AND HARRY G. GOSHGARIAN. Reversible Cervical Hemispinalization of the Rat Spinal Cord by a Cooling Device 102

CLAUDIA SOMMER AND ROBERT R. MYERS. Vascular Pathology in CCI Neuropathy: A Quantitative Temporal Study 113

MAKOTO SAJI, ALAN D. BLAU, AND BRUCE T. VOLPE. Prevention of Transneuronal Degeneration of Neurons in the Substantia Nigra Reticulata by Ablation of the Subthalamic Nucleus 120

HENRIETTE VAN PRAAG, JORDI ALBERCH, ESTHER PEREZ-NAVARRO, HAI WU, PEI MEI QU, IRA B. BLACK, AND CHERYL F. DREYFUS. Unilateral Neonatal Hippocampal Lesion Alters Septal Innervation and Trophism of the Entorhinal Cortex 130

1 253HI XL 265
4/97 31249-200 NULB

Mayank B. Dutia, Darrin P. D. Gilchrist, Andrew J. Sansom, Paul F. Smith, and Cynthia L. Darlington. The Opioid Receptor Antagonist, Naloxone, Enhances Ocular Motor Compensation in Guinea Pig Following Peripheral Vestibular Deafferentation 141

P. Elyse Schauwecker and Thomas H. McNeill. Dendritic Remodeling of Dentate Granule Cells Following a Combined Entorhinal Cortex/Fimbria Fornix Lesion 145

Italo Mocchetti, Stuart J. Rabin, Anna M. Colangelo, Scott R. Whittemore, and Jean R. Wrathall. Increased Basic Fibroblast Growth Factor Expression Following Contusive Spinal Cord Injury 154

Number 2, October 1996

Joanne R. Mathiasen, Dominique Maciejewski-Lenoir, Floyd E. Bloom, and Celia D. Sladek. Increased Vasopressin Secretion from Hypothalamic Cultures Following Administration of Exogenous Vasopressin mRNA..... 165

Masaki Shinoda, John L. Hudson, Ingrid Strömberg, Barry J. Hoffer, John W. Moorhead, and Lars Olson. Microglial Cell Responses to Fetal Ventral Mesencephalic Tissue Grafting and to Active and Adoptive Immunizations..... 173

M. L. Price, B. J. Hoffer, and A-Ch Granholm. Effects of GDNF on Fetal Septal Forebrain Transplants *in Oculo*..... 181

Wutian Wu. Potential Roles of Gene Expression Change in Adult Rat Spinal Motoneurons Following Axonal Injury: A Comparison among c-jun, Low-Affinity Nerve Growth Factor Receptor (LNGFR), and Nitric Oxide Synthase (NOS) 190

Laura J. McIntosh and Robert M. Sapolsky. Glucocorticoids Increase the Accumulation of Reactive Oxygen Species and Enhance Adriamycin-Induced Toxicity in Neuronal Culture 201

Fajko Bajrović and Janez Sketelj. Prior Collateral Sprouting of Sensory Axons Delays Recovery of Pain Sensitivity after Subsequent Nerve Crush 207

Peter J. Elliott, Neil J. Hayward, Michael R. Huff, Tricia L. Nagle, Keith L. Black, and Raymond T. Bartus. Unlocking the Blood–Brain Barrier: A Role for RMP-7 in Brain Tumor Therapy 214

Falk Dittrich, Günter Ochs, Anne Große-Wilde, Ute Berweiler, Qiao Yan, James A. Miller, Klaus V. Toyka, and Michael Sendtner. Pharmacokinetics of Intrathecally Applied BDNF and Effects on Spinal Motoneurons..... 225

Bettina Platt and Klaus G. Reymann. Inhibition of TEA-Induced LTP by Aluminum... 240

Richard Wetts and James E. Vaughn. Differential Vulnerability of Two Subsets of Spinal Motor Neurons in Amyotrophic Lateral Sclerosis..... 248

Steven W. Levison, Melissa H. Ducceschi, Greg M. Young, and Teresa L. Wood. Acute Exposure to CNTF *in Vivo* Induces Multiple Components of Reactive Gliosis 256

N. G. Harris, J. P. McAllister II, J. M. Conaughty, and H. C. Jones. The Effect of Inherited Hydrocephalus and Shunt Treatment on Cortical Pyramidal Cell Dendrites in the Infant H-Tx Rat 269

D. N. Chakravarty and C. L. Faingold. Increased Responsiveness and Failure of Habituation in Neurons of the External Nucleus of Inferior Colliculus Associated with Audiogenic Seizures of the Genetically Epilepsy-Prone Rat..... 280

Virginia L. Smith-Swintosky, Philipp J. Kraemer, Annadora J. Bruce, Nicole McCants, Andrew Maki, Russell W. Brown, Mona Alcala, Yadong Goodman, John T. Slevin, and Mark P. Mattson. Bacterial Alkaloids Mitigate Seizure-Induced Hippocampal Damage and Spatial Memory Deficits..... 287

Paul Fernyhough, Kengo Maeda, and David R. Tomlinson. Brain-Derived Neurotrophic Factor mRNA Levels Are Up-Regulated in Hindlimb Skeletal Muscle of Diabetic Rats: Effect of Denervation 297

Sarah L. Smith, Jo A. Oostveen, and Edward D. Hall. Two Novel Pyrrolopyrimidine Lipid Peroxidation Inhibitors U-101033E and U-104067F Protect Facial Motor Neurons Following Neonatal Axotomy 304

Ken Scalapino, James M. Conner, and Silvio Varon. The Role of NGF and Afferent Denervation in the Process of Sympathetic Fiber Ingrowth into the Hippocampal Formation 310

William P. Melega, Michael J. Raleigh, David B. Stout, Antonio A. DeSalles, Simon R. Cherry, Matthew Blurton-Jones, Grenvill G. Morton, Sung-Cheng Huang, and Michael E. Phelps. Longitudinal Behavioral and 6-[^{18}F]Fluoro-L-DOPA-PET Assessment in MPTP-Hemiparkinsonian Monkeys 318

Alain Barth, Laurence Barth, and David W. Newell. Combination Therapy with MK-801 and α-Phenyl-*tert*-butyl-nitrone Enhances Protection against Ischemic Neuronal Damage in Organotypic Hippocampal Slice Cultures 330

Peter Cain, Marion E. Frank, and Michael A. Barry. Recovery of Chorda Tympani Nerve Function Following Injury 337

Brief Communication

Li Chen, Muataz Noffel, Georgia A. Cottrell, Paul A. Hwang, and W. McIntyre Burnham. Amygdala-Kindled Convulsions in Suspended Rats 347

Author Index for Volume 141 350

Experimental Neurology **and** ***Neurobiology of Disease*** **are abstracted and indexed in: Biological Abstracts (BIOSIS), Chemical Abstracts, Current Contents/Life Sciences, Excerpta Medica (EMBASE), Index Medicus (MEDLINE), Psychological Abstracts (PsychINFO), Reference Update, Research Alert, ISI's Science Citation Index, and SCISEARCH.**